
United States Department of Commerce
National Oceanic Atmospheric Administration
Southeast Fisheries Center
Panama City Laboratory

**Bioprofile Sampling Information for Port
Agents**

2002-2003





Priority species requiring aging and reproduction assessments—Gulf of Mexico

GAG Grouper ¹
Red Grouper ¹⁻²
Snowy Grouper
Yellowedge Grouper ¹⁻²
Scamp ²
Speckled Hind
Warsaw Grouper

Red Snapper ¹

Vermilion Snapper ²

Yellowtail Snapper ³

Red Porgy ¹⁻²

King Mackerel ¹

Spanish Mackerel ¹

Greater Amberjack ³

Gray Triggerfish ¹

**List comprises about 45% of the Gulf finfish catch.
Top priorities comprise about 37% of the finfish catch.**

¹ Species currently being aged.

² Species currently undergoing reproduction studies.

³ Species to be studied in the near future.



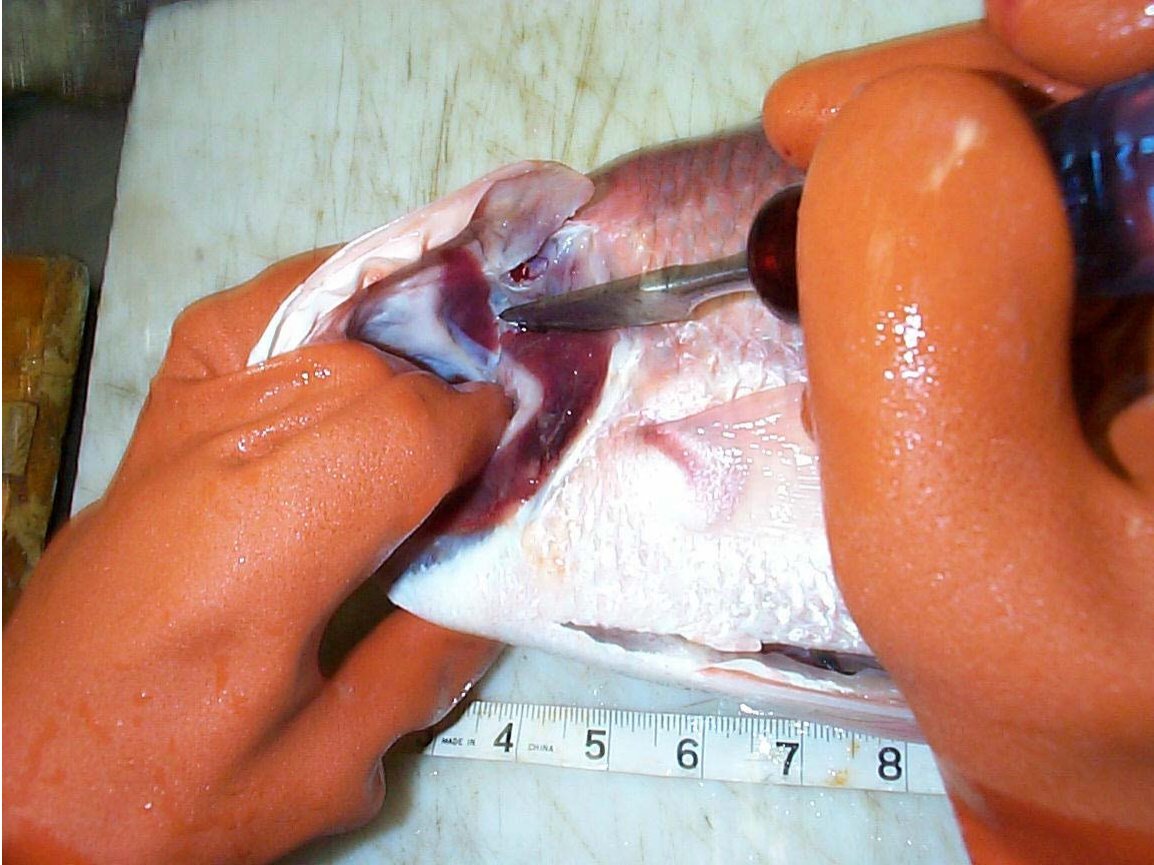
Bioprofile Sampling for Species, Sex, and Size Composition of Catches

AGING

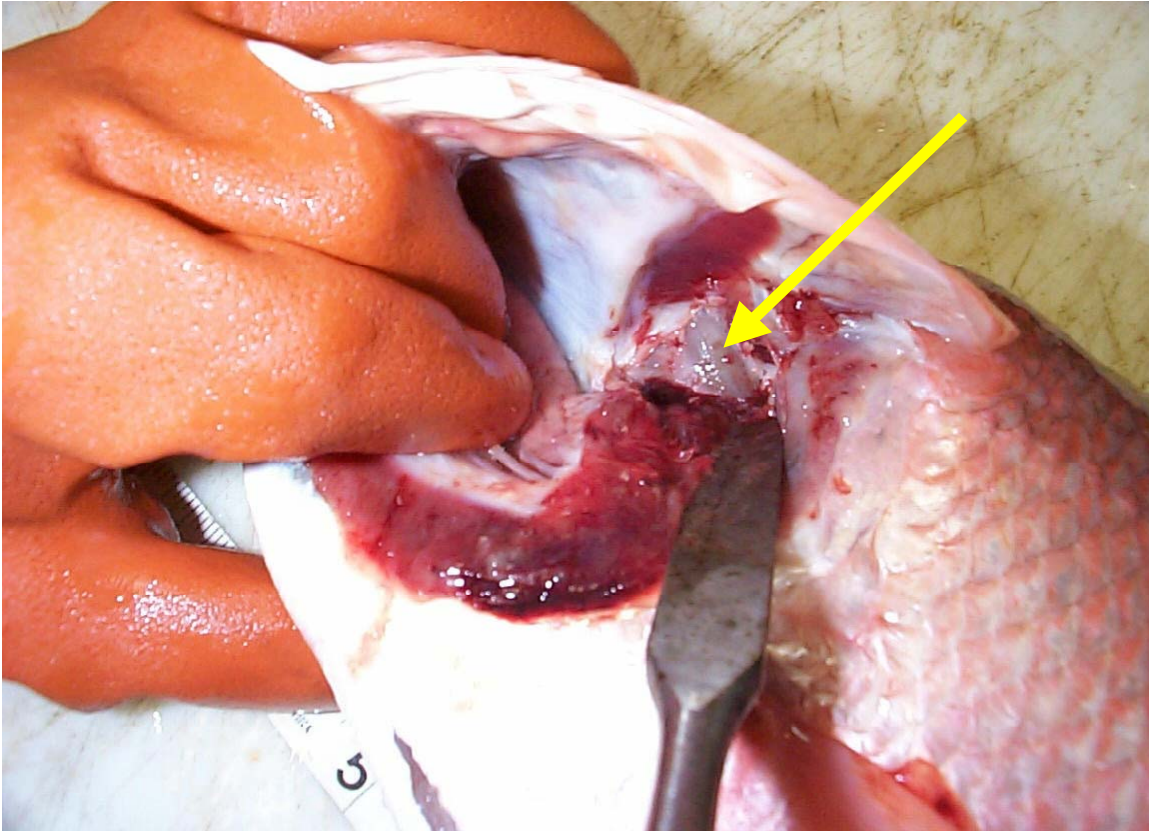
Otolith removal procedures



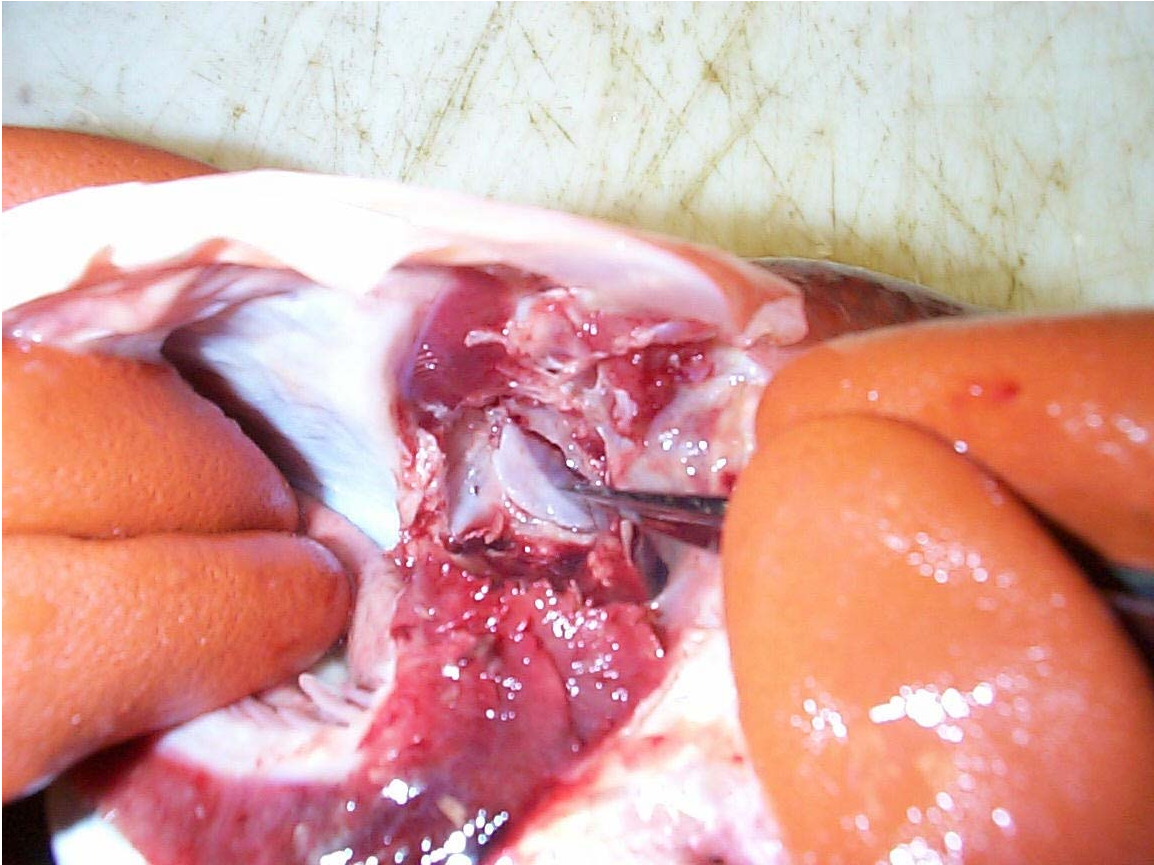
Step 1: Cut the operculum to fold forward and open it wide out of the way.



Step 2: Cut away the gill arches at their insertion.



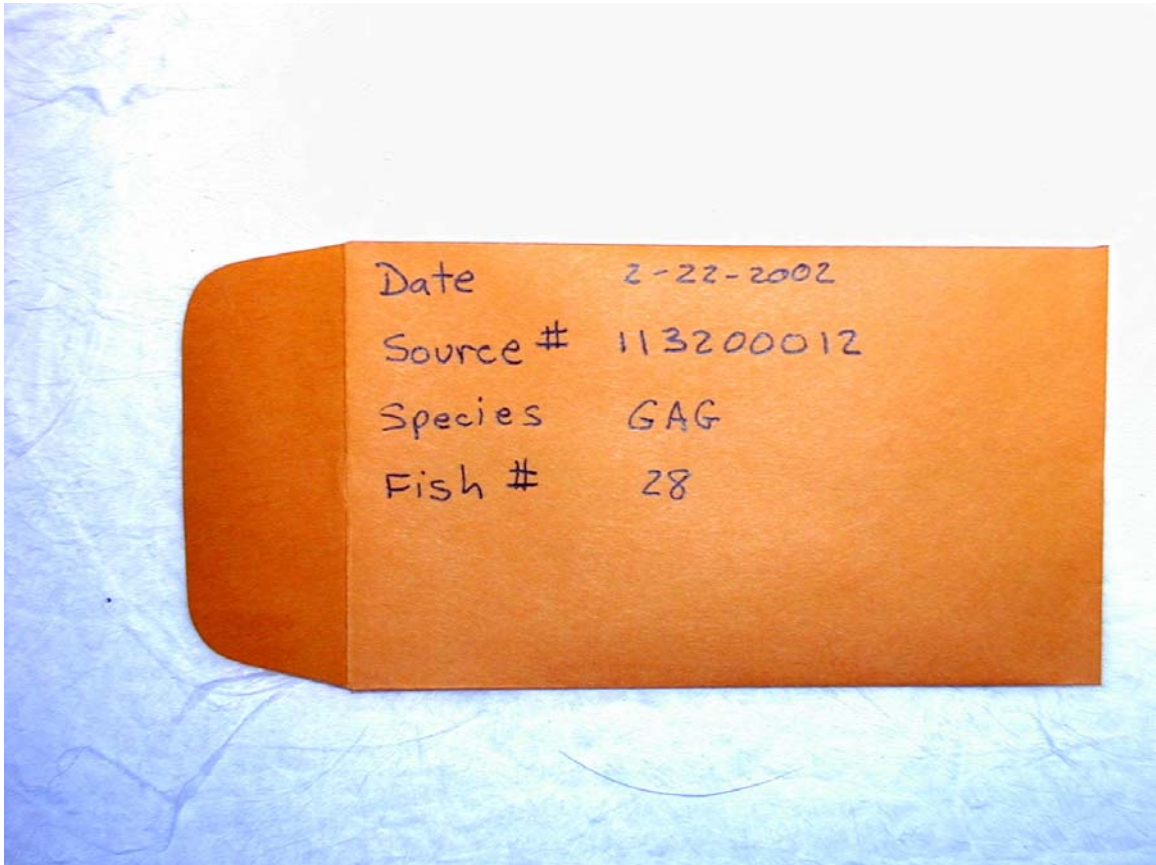
Step 3: Use a chisel to scrape away tissue from the otolith capsule. You can feel a large knob or protrusion at the right spot.



Step 4: Pop open the capsule with the chisel and the relatively large red snapper sagittal otolith is easy to remove with forceps.




Clean: Before storing and shipping otoliths, please rub off any attached membranes and rinse with fresh water.




**Insert otoliths or spines into coin envelopes or similar suitable bags and include copies of original data sheets.
Write Date, Source number, Species & Fish number on otolith envelope.**




After you record the length and weight, look at the fish's abdominal area.



If the fish is whole, take your sharp knife (preferably a “roe-knife”, which has a plastic tip to prevent slicing ripe gonads) and insert the tip just inside the anus. While pulling the knife blade tip against the outer layers of abdominal tissue towards the fish's head, pull the blade out away from the abdomen as you cut so that the knife is less likely to slice into the gonad. Cut the ventral abdomen up to the base of the pelvic fin. Remove the stomach, etc., and place them in the proper container for disposal. The gonad will be the only bilobed organ in the abdominal cavity dorsal to the anus. The two lobes will be at least somewhat joined together posteriorly and attached to the upper-rear abdominal wall. Grab the two lobes (which are probably more free anteriorly) and carefully pull them toward you so you can reach in with the knife and cut their posterior end from the abdominal wall without cutting any (or much) of the lobes. Place the gonad (both lobes) in a sealed Zip Lock bag on ice or in formalin ASAP. Intact gonads may be used for the gonadosomatic index, gonad maturation stage (macroscopic, microscopic and histologic) and fecundity estimates (batch fecundity, spawning frequency and annual fecundity).



If the fish is gutted, look inside the abdomen to see if all or some of the gonad remains. If you find any of the gonad, remove as much of it as possible and place it on ice or in formalin ASAP. Gonad remnants can be used for gonad maturation stage (as above) and spawning frequency estimates.





**On a Zip Lock Bag write the sample date, species and sample number along with interview/ collection number.
Insert gonad into Zip Lock bag and seal. Use a black Sharpie marker.**



Female Vermilion Snapper with developed ovaries.



Developed Red Porgy testes.



Icing and shipping to us:

Icing: Use ONLY heavy-duty freezer bags which we will send to you for the gonads. These bags are thicker and stronger than other bags, allowing us to use them for preserving and storing the gonads in formalin.

Shipping: Please write the species abbreviation, sample number, your initials, sampling location, fishery code, and sampling date on the dry zip lock bag (with a black permanent marker, such as a Sharpie) or on a waterproof tag (with a #1 or #2 pencil) to go inside the bag. This will help us to always be able to separate and identify each sample, even when they get mixed together with many others that were taken on the same date.

Send to:

National Marine Fisheries Service
Panama City Laboratory
3500 Delwood Beach Road
Panama City, Fl, 32408-7403

For Federal Express shipping information and supplies please contact:
Bill Walling, Alan Collins or Gary Fitzburgh Phone: 850-234-6541
by e-mail: Bill.walling@noaa.gov

